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09/10/2003

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EXAMINER

STONE, JENNIFER A

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/027,094

Applicant(s)

BEN-ARIE, ODED

Examiner

Jennifer A Stone

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: .

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoolman (U.S. 5,281,957) in view of Kubik (U.S. 4,753,514) and Lewis (U.S. 4,028,725).

**For claim 1**, Schoolman discloses a system for providing a pilot with a dashboard avionics display (col 7, lns 56-65) that can be viewed while the pilot's eyes are focused at infinity, or, the unlimited extent of an individual's line-of-sight, such as through the aircraft windshield (col 5, lns 59-68). A computer is connected to an airplane avionics display panel by means of input/output ports and output channels (col 5, lns 53-65; col 6, lns 58-60; Fig. 10). The display panel is hinge-mounted on a pair of eyeglasses in order to receive the output of a computer (col 4, lns 68; col 5 lns 1-2 and 30; Fig. 3). Furthermore, Schoolman discloses the computer being operative to process the information from the avionics display panel ports, such as engine oil and water temperatures, ammeter indications, and performance feedback information such as airspeed, and tachometer readings (col 5, lns 55-65). This information will be displayed directly to the pilot on the eyeglass head mounted display (col 6, lns 40-45; col 7, lns 53-63).

Art Unit: 2636

Schoolman does not specifically mention that the computer processes all of the principal flight instruments in order to produce a single display. Lewis, however, shows an entire cockpit instrument panel, displayed on a helmet, directly in front of a pilot's eyes (col 8, Ins 17-19; Fig. 9B). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to include the entire cockpit instrument display panel onto a single display viewed by a pilot such as on a pair of eyeglasses. The motivation to combine the entire instrument display panel onto a single display panel will enhance the safety of the pilot and the passengers by the pilot being able to view all the instrument parameters at a single glance and, as Lewis points out, to conserve space in the cockpit area (col 9, Ins 24-30).

Even though Schoolman discloses the display panel being hinge-mounted on a pair of eyeglasses, it is not clear whether the hinge-mounted device serves the same purpose as the clip-on device. It is apparent that the display screen, disclosed by Kubik, is clip-mounted to the frame of a pair of eyeglasses (col 3, Ins 1-6; Fig. 1, items 18 and 19). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to include a clip-on device in lieu of the hinge-mounted device so that the eyeglass user could choose between attaching or detaching the displayed image. This option would benefit a user that requires prescription glasses; for the user would have the option of detaching the displayed image and wearing the glasses for an indefinite amount of time.

Art Unit: 2636

**For claim 2**, as applied to claim 1 above, Lewis shows the display being in the form of a primary flight display (Fig 9B). It would have been obvious to include the exact form of the primary flight display on the display of the eyeglasses so that the pilot has the most realistic and familiar perspective of the instrument orientation of the cockpit, displayed on the pair of eyeglasses. If the pilot has the most familiar perspective of the cockpit instrument arrangement, right before their eyes, they can quickly respond to potential problems, thereby enhancing the safety of the plane while in flight.

**For claim 3**, as applied to claim 1 above, Schoolman discloses a liquid crystal display mounted within the eyeglasses (col 3, lns 1-6).

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kosugi et al. (U.S. 6,483,483) discloses eyeglasses type image display apparatus.

Niwa et al. (U.S. 6,101,431) discloses a flight system and system for forming virtual images for an aircraft.

Cohen (U.S. 4,181,405) discloses a head-up viewing display.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Stone whose telephone number is (703) 305.2267. The examiner can normally be reached 8:00-4:30, M-F.

Art Unit: 2636

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffery Hofsass can be reached at (703) 305.4717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308.6743 for regular communications and (703) 308.6743 for after final communications.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305.3900.

Jennifer Stone  
August 28, 2003



JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
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